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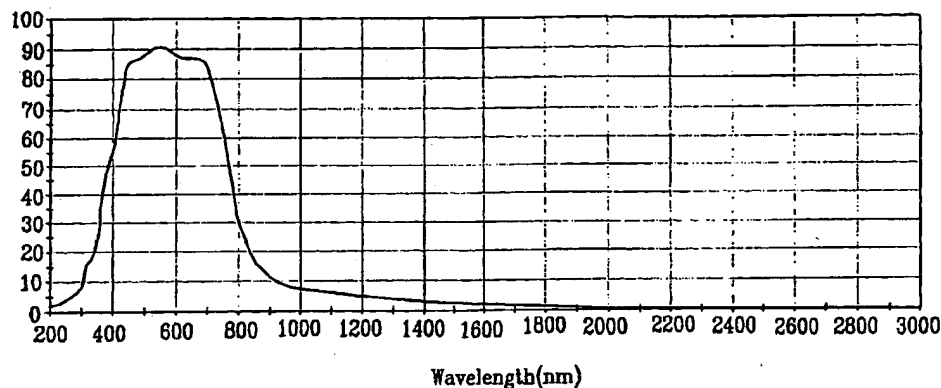
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(54) Title: OPTICAL COATINGS FOR ULTRAVIOLET AND INFRARED REFLECTION

Transmittance(%)



(57) Abstract: A multilayer structure for shading ultraviolet and infrared light includes two or three layers of Ag; two or three layers of indium tin oxide (ITO); and dielectric oxide layers ranging from two layers to four layers. At least two Ag layers are formed to be in contact with the ITO layers as an upward or downward layer. Each dielectric oxide layer is made of a material which is selected from SiO₂, TiO₂, Al₂O₃, ZrO₂, Y₂O₃ and Ta₂O₅. The structure effectively shades ultraviolet and infrared light while transmitting visible light with a transmittance more than 85 %.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/KR2003/002759**A. CLASSIFICATION OF SUBJECT MATTER****IPC7 B32B 7/02**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean patents and applications for inventions since 1975

Korean utility models and applications for utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

IBM, PAJ, USPTO, EPO, Korean patent search system

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	KR 10-2000-17060 A (NIPPON SHEET GLASS CO., LTD) 25 Mar 2000 see the abstract.	1 - 13
A	KR 10-1999-81917 A (NIPPON SHEET GLASS CO., LTD) 15 Nov 1999 see the abstract.	1 - 13
A	KR 10-2001-11593 A (SAMSUNG SDS CO., LTD) 15 Feb 2001 see the abstract.	1 - 13
A	KR 10-2001-17016 A (SAMSUNG SDS CO., LTD) 5 Mar 2001 see the abstract.	1 - 13

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

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Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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KR 10-1999-81917 A	15.11.1999	WO 98/27021 A1	25.06.1998
		EP 882686 A1	09.12.1998
		JP 10-231146	02.09.1998
		US 6379776 BA	30.04.2002
KR 10-2001-11593 A	15.02.2001	none	
KR 10-2001-17016 A	05.03.2001	none	